

BULLARD WASH NEAR GILA RIVER
FCD GAGE ID# 6863

STATION DESCRIPTION

LOCATION – The gage is located approximately 1/4 mile east of Estrella Parkway and approximately 1/4 mile north of the Gila River. The gage instrumentation is located on the northeast corner of the Bullard Wash crossing of the Buckeye Irrigation District Canal. Latitude N 33° 23' 50.3", Longitude W 112° 23' 13.7". Located in the SE1/4 NW1/4 SW1/4 S29 T1N R1W in the Perryville 7.5-minute quadrangle.

ESTABLISHMENT – The gage was installed on March 30, 2000.

DRAINAGE AREA – 58 mi², approximate.

GAGE – The gage is a pressure transducer type instrument. The PT is at gage height 0.19 feet relative to 0.00 being the channel invert, levels of March 30, 2000. From the design plans, the elevation of the invert at the gage is 906.50 feet M.S.L.

There is no staff gage at this location.

There is one crest stage gage at this location. It is located near the PT. It has a pin elevation of 0.79 feet gage height, levels of March 30, 2000.

ZERO GAGE HEIGHT – Zero gage height is defined as the invert of the channel in the gage cross section. Elevation is 906.50 feet M.S.L.

HISTORY – No previous history at this location. Gaging established on March 30, 2000.

REFERENCE MARKS –

RP1 is a chiseled '+' near the right bank. It is on the northmost edge of the right hand curbing for the pathway as it goes downhill through the riprap. It was established March 30, 2000. It has elevation -0.13 feet gage height or 906.37 feet M.S.L., levels of March 30, 2000.

RP2 is a nail in an aerial survey marker located near the gage standpipe. Establishment is unknown. Elevation 9.29 feet gage height or 915.79 feet M.S.L., levels of March 30, 2000.

CHANNEL AND CONTROL – The channel transitions from trapezoidal upstream of the gage to a rectangular channel in the gage location. The control is the rectangular

channel for all levels. Just below the gage section, the channel has a grade break, dropping 5 feet in approximately 95 feet.

RATING – The current rating is Rating #1. The rating was developed from the existing design hydraulics done by Wood Patel and Associates. An HEC-RAS model was developed by Wood Patel for analysis of the 100-year water surface elevation, of 3,200 cfs. The profiles and boundary conditions were modified from the original design to account for field conditions. The slope was decreased slightly. Twelve profiles were selected for various discharges to produce a rating curve.

DISCHARGE MEASUREMENTS – Low flows could be measured by wading in the channel upstream of the gage and the constriction. Higher flows may be measured from the bridge downstream of the gage. However, the channel immediately upstream from the bridge is at a steep slope and may not be suitable.

POINT OF ZERO FLOW – The PZF is 0.00 feet gage height at the channel invert in the center of the channel, levels of February 10, 2000.

FLOODS – Peak recorded was August 2, 2005, 347 cfs, 1.29 feet gage height.

REGULATION – None known.

DIVERSIONS – None known

ACCURACY – Fair

JUSTIFICATION – Monitor flows in Bullard Wash. This area is projected to be a recreation corridor in the future.

UPDATE – July 13, 2011
D. E. Gardner